

In the Claims

Please cancel Claims 63, 66, and 73-133 without prejudice to their prosecution in a continuing application.

Please amend Claims 47, 49, 51, 54, 55, 57, 58, 60, 62, 67, and 68.

C1 47. (Twice Amended) An isolated nucleic acid having at least 80% nucleotide sequence identity to a nucleic acid encoding a polypeptide comprising the amino acid sequence SEQ ID NO:6, wherein said polypeptide has iron transport activity.

C2 49. (Amended) An isolated nucleic acid comprising a portion of nucleotide sequence SEQ ID NO:5 which encodes a contiguous portion of at least 190 amino acids of SEQ ID NO:6.

C3 51. (Amended) An isolated nucleic acid comprising a nucleotide sequence which encodes a naturally occurring allelic variant of a polypeptide consisting of the amino acid sequence of a Ferroportin1 protein, wherein said nucleic acid hybridizes under high stringency conditions to the complement of the sequence SEQ ID NO:5.

C4 54. (Amended) An isolated nucleic acid comprising a nucleotide sequence encoding a polypeptide having iron transport activity, wherein said nucleotide sequence shares at least 80% sequence identity with the nucleotide sequence SEQ ID NO:5.

55. (Amended) An isolated nucleic acid encoding a fusion polypeptide having iron transport activity, said nucleic acid molecule comprising a nucleotide sequence encoding all or a portion of an amino acid sequence SEQ ID NO:6, and further comprising a nucleotide sequence encoding a heterologous portion of said fusion polypeptide.

C5 57. (Amended) A nucleic acid vector comprising nucleic acid having at least 80% nucleotide sequence identity to a nucleic acid encoding a polypeptide comprising the amino acid sequence SEQ ID NO:6, wherein said polypeptide has iron transport activity.

C5
58. (Amended) A nucleic acid vector comprising nucleic acid encoding a fusion polypeptide having iron transport activity, said nucleic acid comprising a nucleotide sequence encoding all or a portion of an amino acid sequence SEQ ID NO:6, and further comprising a nucleotide sequence encoding a heterologous portion of said fusion polypeptide.

C6
60. (Amended) A nucleic acid vector comprising nucleic acid having at least 80% nucleotide sequence identity to a nucleic acid encoding a polypeptide comprising the amino acid sequence SEQ ID NO:6, wherein the polypeptide has iron transport activity.

C7
62. (Amended) A nucleic acid vector comprising a nucleic acid with at least 80% nucleotide sequence identity to the coding region of SEQ ID NO:5, wherein said nucleic acid encodes a polypeptide with iron transport activity.

C8
67. (Twice Amended) A cultured cell comprising nucleic acid having at least 80% nucleotide sequence similarity to a nucleic acid encoding a polypeptide comprising the amino acid sequence SEQ ID NO:6, wherein said polypeptide has iron transport activity.

68. (Twice Amended) A cultured cell comprising nucleic acid comprising a contiguous portion of SEQ ID NO:5 which encodes a contiguous portion of at least about 15 amino acids of SEQ ID NO:6.

Amendments to the claims are indicated in the attached "Marked Up Version of Amendments" (pages i - ii).

Please add Claims 134-139.

C9
134. (New) An isolated nucleic acid comprising a nucleotide sequence which encodes a naturally occurring allelic variant of a polypeptide consisting of the amino acid sequence of a Ferroportin1 protein, wherein said nucleic acid hybridizes under high stringency conditions to a nucleic acid consisting of the complement of SEQ ID NO:7.